

In the Claims:

Please amend claims 1-5, 9, 21, and 30-34. The claims are as follows.

1. (Currently amended) A method of allocating one or more resource units in a sequence of allocatable resource units, said method comprising the steps of:

[[(1)]] identifying each said resource unit with a leading and a trailing identity separated by a first divider, whereby for a pair of adjacent resource units in said sequence, the trailing identifier of the earlier of said adjacent resource units is the leading identifier of the later of said adjacent resource units;

[[(2)]] arranging said identifiers and dividers into a pool string corresponding to said sequence of resource units; and

[[(3)]] identifying an allocated resource unit by changing said first divider into a second divider whereby an allocated resource unit is identified by said leading and trailing identifiers separated by said second divider.

2. (Currently amended) The method as claimed in claim 1 comprising the further step of:

[[(4)]] identifying allocated successive resource units in said sequence by all the identifiers of said successive resource units being separated by said second identifiers.

3. (Currently amended) The method as claimed in claim 1 comprising the further steps of:

[[(5)]] representing a request for an allocation of one or more resource units as a request

string of identifiers, each leading and trailing identifier being separated by one of said first dividers;

[[(6)]] comparing said request string with said pool string, and where a match is detected;

[[(7)]] replacing the corresponding ones of said first dividers with said second dividers to allocate said resource unit(s).

4. (Currently amended) The method as claimed in claim 1 comprising the further step of:

[[(8)]] representing a request for a deallocation of one or more resource units as a request string of identifiers, each leading and trailing identifier being separated by one of said second dividers;

[[(9)]] comparing said request string with said pool string, and where a match is detected;

[[(10)]] replacing the corresponding ones of said second dividers with said first dividers to deallocate said resource unit(s).

5. (Currently amended) The method as claimed in claim 3 comprising the further steps of:

[[(11)]] forming a pair of linked pool strings, one of said linked strings substantially comprising said pool string and having a first plurality of identifiers and a second plurality of said first dividers, and the other of said linked strings comprising a like second plurality of first dividers interposed between a like second plurality of ersatz identifiers;

[[(12)]] actioning a request for an allocation of said resource units having a pair of request criteria by truncating said linked pool strings in accordance with one of said request criteria to form a pair of equal length linked sub-pool strings, and by representing the other of

said request criteria as a request string of said ersatz identifiers separated by said first dividers;

[[{(13)}] comparing said request string having said ersatz identifiers with said sub-pool string having said ersatz identifiers, and where a match is detected;

[[{(14)}] replacing the corresponding ones of said first dividers in both said linked substrings with said second divider to allocate said resource units.

6. (Original) The method as claimed in claim 1 wherein each of said leading and trailing identifiers is different from the other identifiers.

7. (Original) The method as claimed in claim 1 wherein each of said leading and trailing identifiers is the same.

8. (Original) The method as claimed in claim 1 wherein said resource units are selected from the class of resource units consisting of at least time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft.

9. (Currently amended) The method as claimed in claim 1 wherein said resource units are selected from the class of resource units consisting of time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft, ~~and the like~~.

10. (Original) Allocated resource unit(s), allocated from a sequence of allocatable resource units

in accordance with the method as claimed in claim 1.

11. (Currently amended) Allocated resource unit(s) as claimed in claim 10 and selected from the class of resource units consisting of time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft, ~~and the like.~~

12. (Original) Allocated resource unit(s) as claimed in claim 10 and selected from the class of resource units consisting of one of at least time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft.

13. (Original) A system for allocating one or more resource units in a sequence of allocatable resource units, said system comprising:

identifying means to identify each said resource unit with a leading and a trailing identifier separated by a first divider, whereby for a pair of adjacent resource units in said sequence the trailing identifier of the earlier of said adjacent resource units is the leading identifier of the later of said adjacent resource units;

arranging means to arrange said identifiers and dividers into a pool string corresponding to said sequence of resource units; and

changing means to change one or more of said first dividers into corresponding second dividers to thereby identify each allocated resource unit by said leading and trailing identifiers separated by said second divider.

14. (Original) The system as claimed in claim 13 wherein said identifying means identifies allocated successive resource units in said sequence by all the identifiers of said successive resource units being separated by said second identifiers.

15. (Original) The system as claimed in claim 13 further comprising requesting means which represents a request for an allocation of one or more resource units as a request string of identifiers, each leading and trailing identifier being separated by one of said first dividers; and comparison means connected with said requesting means and said changing means to compare said request string with said pool string, and where a match is detected causing said changing means to replace the corresponding ones of said first dividers with said second dividers to allocate said resource unit(s).

16. (Original) The system as claimed in claim 13 further comprising requesting means which represents a request for a deallocation of one or more resource units as a request string of identifiers, each leading and trailing identifier being separated by one of said second dividers; and

comparison means connected with said requesting means and said changing means to compare said request string with said pool string, and where a match is detected causing said changing means to replace the corresponding ones of said second dividers with said first dividers to deallocate said resource unit(s).

17. (Previously presented) The system as claimed in claim 15 wherein said arranging means

forms a pair of linked pool strings, one of said linked strings substantially comprising said pool string and having a first plurality of identifiers and a second plurality of said first dividers, and the other of said linked strings comprising a like second plurality of first dividers interposed between a like second plurality of ersatz identifiers;

said comparison means actions a request for an allocation of said resource units having a pair of request criteria by truncating said linked pool strings in accordance with one of said request criteria to form a pair of equal length linked sub-pool strings, and by representing the other of said request criteria as a request string of said ersatz identifiers separated by said first dividers; and

compares said request string having said ersatz identifiers with said sub-pool string having said ersatz identifiers, and where a match is detected causes said changing means to replace the corresponding ones of said first dividers in both said linked substrings with said second divider to allocate said resource units.

18. (Original) The system as claimed in claim 13 wherein each of said leading and trailing identifiers is different from the other identifiers.

19. (Original) The system as claimed in claim 13 wherein each of said leading and trailing identifiers is the same.

20. (Original) The system as claimed in claim 13 wherein said resource units are selected from the class of resource units consisting of at least time periods available to book a room, time

periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft.

21. (Currently amended) The system as claimed in claim 13 wherein said resource units are selected from the class of resource units consisting of time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft, ~~and the like.~~

22. (Original) A computer program product for allocating one or more resource units in a sequence of allocatable resource units, and adapted to be stored in a computer storage medium or transmitted electronically via a transmission medium, said computer program product comprising:

identifying means to identify each said resource unit with a leading and a trailing identifier separated by a first divider, whereby for a pair of adjacent resource units in said sequence the trailing identifier of the earlier of said adjacent resource units is the leading identifier of the later of said adjacent resource units;

arranging means to arrange said identifiers and dividers into a pool string corresponding to said sequence of resource units; and

changing means to change one or more of said first dividers into corresponding second dividers to thereby identify each allocated resource unit by said leading and trailing identifiers separated by said second divider.

23. (Original) The product as claimed in claim 22 wherein said identifying means identifies

allocated successive resource units in said sequence by all the identifiers of said successive resource units being separated by said second identifiers.

24. (Original) The product as claimed in claim 22 further comprising requesting means which represents a request for an allocation of one or more resource units as a request string of identifiers, each leading and trailing identifier being separated by one of said first dividers; and comparison means connected with said requesting means and said changing means to compare said request string with said pool string, and where a match is detected causing said changing means to replace the corresponding ones of said first dividers with said second dividers to allocate said resource unit(s).

25. (Original) The product as claimed in claim 22 further comprising requesting means which represents a request for a deallocation of one or more resource units as a request string of identifiers, each leading and trailing identifier being separated by one of said second dividers; and

comparison means connected with said requesting means and said changing means to compare said request string with said pool string, and where a match is detected causing said changing means to replace the corresponding ones of said second dividers with said first dividers to deallocate said resource unit(s).

26. (Previously presented) The product as claimed in claim 24 wherein said arranging means forms a pair of linked pool strings, one of said linked strings substantially comprising said pool

string and having a first plurality of identifiers and a second plurality of said first dividers, and the other of said linked strings comprising a like second plurality of first dividers interposed between a like second plurality of ersatz identifiers; and

said comparison means actions a request for an allocation of said resource units having a pair of request criteria by truncating said linked pool strings in accordance with one of said request criteria to form a pair of equal length linked sub-pool strings, and by representing the other of said request criteria as a request string of said ersatz identifiers separated by said first dividers; and compares said request string having said ersatz identifiers with said sub-pool string having said ersatz identifiers, and where a match is detected causes said changing means to replace the corresponding ones of said first dividers in both said linked substrings with said second divider to allocate said resource units.

27. (Original) The product as claimed in claim 22 wherein each of said leading and trailing identifiers is different from the other identifiers.

28. (Original) The product as claimed in claim 22 wherein each of said leading and trailing identifiers is the same.

29. (Original) The product as claimed in claim 22 wherein said resource units are selected from the class of resource units consisting of at least time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft.

30. (Currently amended) The product as claimed in claim 22 wherein said resource units are selected from the class of resource units consisting of time periods available to book a room, time periods in a schedule, memory locations in a computer storage medium, and seats in an aircraft, ~~and the like.~~

31. (Currently amended) A method of queuing resource allocation and deallocation requests in a computing environment, said method comprising the steps of:

[[(1)]] forming an Allocation Queue of requests for resource allocations,

[[(2)]] forming a Deallocation Queue of requests for resource deallocations,

[[(3)]] forming a Pending Queue of requests for resource allocation which cannot be met immediately,

[[(4)]] forming a Cancel Queue of requests to cancel an earlier request already waiting in either the Pending Queue or the Allocation Queue,

[[(5)]] carrying out a cycle of servicing said Queues in the sequence comprising said Deallocation Queue, said Cancel Queue, said Pending Queue and said Allocation Queue, and

[[(6)]] repeating ~~the cycle of~~ said carrying out the cycle of servicing said Queues step [[(5)]].

32. (Currently amended) A queuing method as claimed in claim 31 comprising the further step of:

[[(7)]] servicing said Cancel Queue by examining said Allocation Queue and said Pending Queue respectively and cancelling any allocation requests located therein and also in

said Cancel Queue.

33. (Currently amended) A queuing method as claimed in claim 32 comprising the further steps of:

[[(8)]] servicing said Pending Queue by checking each request in said Pending Queue against both the allocated resources and any earlier request in the Pending Queue and only if both checks indicate no conflict granting the request by allocating the resources.

34. (Currently amended) A queuing method as claimed in claim 33 comprising the further step of:

[[(9)]] servicing said Allocation Queue by checking the earliest request at the head of the Allocation Queue against requests in the Pending Queue, and the allocated resources, and only if no conflict is indicated in either, allocating the resources and otherwise transferring the request to the tail of the Pending Queue.

35. (Canceled)